Semi-Volatile Organic Compounds
EPA Method 8270C

Organic Analysis:
Semi-Volatile Organic Compounds by GC/MS

Summary Package

Sample and QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554

Cover Page - Organic Analysis Data Package
Semi-Volatile Organic Compounds by GC/MS

Sample Name	Lab Code	Date Collected	Date Received
TO63-IDW-01	K2502554-001	04/07/2005	04/08/2005

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Carl Degner

Date: 4/19/05 Title: SVM Supervisor

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	04/07/2005
Sample Matrix:	Soil	**Date Received:**	04/08/2005

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	TO63-IDW-01	**Units:**	ug/Kg
Lab Code:	K2502554-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND	U	7.3	7.1	1	04/11/05	04/15/05	KWG0505755	
Phenol	**4.2**	J	22	2.8	1	04/11/05	04/15/05	KWG0505755	
Bis(2-chloroethyl) Ether	ND	U	7.3	3.5	1	04/11/05	04/15/05	KWG0505755	
2-Chlorophenol	ND	U	7.3	2.5	1	04/11/05	04/15/05	KWG0505755	
2-Methylphenol	ND	U	7.3	5.0	1	04/11/05	04/15/05	KWG0505755	
Bis(2-chloroisopropyl) Ether	ND	U	7.3	1.8	1	04/11/05	04/15/05	KWG0505755	
Acetophenone	ND	U	37	18	1	04/11/05	04/15/05	KWG0505755	
4-Methylphenol†	ND	U	7.3	4.2	1	04/11/05	04/15/05	KWG0505755	
N-Nitrosodi-n-propylamine	ND	U	7.3	4.7	1	04/11/05	04/15/05	KWG0505755	
Hexachloroethane	ND	U	7.3	3.2	1	04/11/05	04/15/05	KWG0505755	
Nitrobenzene	ND	U	7.3	2.9	1	04/11/05	04/15/05	KWG0505755	
Isophorone	ND	U	7.3	2.4	1	04/11/05	04/15/05	KWG0505755	
2-Nitrophenol	ND	U	7.3	3.8	1	04/11/05	04/15/05	KWG0505755	
2,4-Dimethylphenol	ND	U	37	8.0	1	04/11/05	04/15/05	KWG0505755	
Bis(2-chloroethoxy)methane	ND	U	7.3	1.9	1	04/11/05	04/15/05	KWG0505755	
2,4-Dichlorophenol	ND	U	7.3	2.7	1	04/11/05	04/15/05	KWG0505755	
Naphthalene	ND	U	7.3	1.9	1	04/11/05	04/15/05	KWG0505755	
4-Chloroaniline	ND	U	7.3	3.1	1	04/11/05	04/15/05	KWG0505755	
Hexachlorobutadiene	ND	U	7.3	2.1	1	04/11/05	04/15/05	KWG0505755	
Caprolactam	ND	U	18	18	1	04/11/05	04/15/05	KWG0505755	
Benzaldehyde	ND	U	15	13	1	04/11/05	04/15/05	KWG0505755	
4-Chloro-3-methylphenol	ND	U	7.3	3.1	1	04/11/05	04/15/05	KWG0505755	
2-Methylnaphthalene	ND	U	7.3	1.8	1	04/11/05	04/15/05	KWG0505755	
Hexachlorocyclopentadiene	ND	U	37	22	1	04/11/05	04/15/05	KWG0505755	
2,4,6-Trichlorophenol	ND	U	7.3	2.7	1	04/11/05	04/15/05	KWG0505755	
2,4,5-Trichlorophenol	ND	U	7.3	4.4	1	04/11/05	04/15/05	KWG0505755	
Biphenyl	ND	U	15	7.0	1	04/11/05	04/15/05	KWG0505755	
2-Chloronaphthalene	ND	U	7.3	5.3	1	04/11/05	04/15/05	KWG0505755	
2-Nitroaniline	ND	U	15	4.0	1	04/11/05	04/15/05	KWG0505755	
Dimethyl Phthalate	ND	U	7.3	2.7	1	04/11/05	04/15/05	KWG0505755	
2,6-Dinitrotoluene	ND	U	7.3	4.1	1	04/11/05	04/15/05	KWG0505755	
Acenaphthylene	ND	U	7.3	2.1	1	04/11/05	04/15/05	KWG0505755	
3-Nitroaniline	ND	U	15	3.8	1	04/11/05	04/15/05	KWG0505755	

Comments:

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: 04/07/2005
Date Received: 04/08/2005

Semi-Volatile Organic Compounds by GC/MS

Sample Name: TO63-IDW-01
Lab Code: K2502554-001

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acenaphthene	ND	U	7.3	1.5	1	04/11/05	04/15/05	KWG0505755	
2,4-Dinitrophenol	ND	U	150	53	1	04/11/05	04/15/05	KWG0505755	
4-Nitrophenol	ND	U	73	44	1	04/11/05	04/15/05	KWG0505755	
Dibenzofuran	ND	U	7.3	1.9	1	04/11/05	04/15/05	KWG0505755	
2,4-Dinitrotoluene	ND	U	7.3	4.1	1	04/11/05	04/15/05	KWG0505755	
Diethyl Phthalate	ND	U	7.3	5.1	1	04/11/05	04/15/05	KWG0505755	
Fluorene	ND	U	7.3	2.5	1	04/11/05	04/15/05	KWG0505755	
4-Chlorophenyl Phenyl Ether	ND	U	7.3	2.9	1	04/11/05	04/15/05	KWG0505755	
4-Nitroaniline	ND	U	15	5.0	1	04/11/05	04/15/05	KWG0505755	
2-Methyl-4,6-dinitrophenol	ND	U	73	2.5	1	04/11/05	04/15/05	KWG0505755	
N-Nitrosodiphenylamine	ND	U	7.3	3.2	1	04/11/05	04/15/05	KWG0505755	
4-Bromophenyl Phenyl Ether	ND	U	7.3	2.1	1	04/11/05	04/15/05	KWG0505755	
Hexachlorobenzene	ND	U	7.3	3.1	1	04/11/05	04/15/05	KWG0505755	
Atrazine	ND	U	7.3	3.2	1	04/11/05	04/15/05	KWG0505755	
Pentachlorophenol	ND	U	73	13	1	04/11/05	04/15/05	KWG0505755	
Phenanthrene	ND	U	7.3	1.9	1	04/11/05	04/15/05	KWG0505755	
Anthracene	ND	U	7.3	2.1	1	04/11/05	04/15/05	KWG0505755	
Carbazole	ND	U	7.3	1.9	1	04/11/05	04/15/05	KWG0505755	
Di-n-butyl Phthalate	**17**	B	7.3	3.8	1	04/11/05	04/15/05	KWG0505755	
Fluoranthene	ND	U	7.3	3.2	1	04/11/05	04/15/05	KWG0505755	
Pyrene	**2.1**	J	7.3	1.9	1	04/11/05	04/15/05	KWG0505755	
Butyl Benzyl Phthalate	ND	U	7.3	2.2	1	04/11/05	04/15/05	KWG0505755	
3,3'-Dichlorobenzidine	ND	U	73	5.4	1	04/11/05	04/15/05	KWG0505755	
Benz(a)anthracene	**2.8**	J	7.3	2.1	1	04/11/05	04/15/05	KWG0505755	
Chrysene	**3.7**	J	7.3	2.1	1	04/11/05	04/15/05	KWG0505755	
Bis(2-ethylhexyl) Phthalate	**45**	J	150	2.5	1	04/11/05	04/15/05	KWG0505755	
Di-n-octyl Phthalate	ND	U	7.3	1.8	1	04/11/05	04/15/05	KWG0505755	
Benzo(b)fluoranthene	**6.5**	J	7.3	3.7	1	04/11/05	04/15/05	KWG0505755	
Benzo(k)fluoranthene	ND	U	7.3	3.7	1	04/11/05	04/15/05	KWG0505755	
Benzo(a)pyrene	ND	U	7.3	2.4	1	04/11/05	04/15/05	KWG0505755	
Indeno(1,2,3-cd)pyrene	ND	U	7.3	2.8	1	04/11/05	04/15/05	KWG0505755	
Dibenz(a,h)anthracene	ND	U	7.3	3.2	1	04/11/05	04/15/05	KWG0505755	
Benzo(g,h,i)perylene	**5.2**	J	7.3	3.4	1	04/11/05	04/15/05	KWG0505755	

Comments:

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Collected:**	04/07/2005
Sample Matrix:	Soil	**Date Received:**	04/08/2005

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	TO63-IDW-01	**Units:**	ug/Kg
Lab Code:	K2502554-001	**Basis:**	Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	62	11-87	04/15/05	Acceptable
Phenol-d6	76	20-99	04/15/05	Acceptable
Nitrobenzene-d5	70	10-99	04/15/05	Acceptable
2-Fluorobiphenyl	72	10-104	04/15/05	Acceptable
2,4,6-Tribromophenol	89	23-113	04/15/05	Acceptable
Terphenyl-d14	112	39-124	04/15/05	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG0505755-7

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2,4,5-Tetrachlorobenzene	ND	U	5.0	4.9	1	04/11/05	04/15/05	KWG0505755	
Phenol	ND	U	15	1.9	1	04/11/05	04/15/05	KWG0505755	
Bis(2-chloroethyl) Ether	ND	U	5.0	2.4	1	04/11/05	04/15/05	KWG0505755	
2-Chlorophenol	ND	U	5.0	1.7	1	04/11/05	04/15/05	KWG0505755	
2-Methylphenol	ND	U	5.0	3.4	1	04/11/05	04/15/05	KWG0505755	
Bis(2-chloroisopropyl) Ether	ND	U	5.0	1.2	1	04/11/05	04/15/05	KWG0505755	
Acetophenone	ND	U	25	12	1	04/11/05	04/15/05	KWG0505755	
4-Methylphenol†	ND	U	5.0	2.9	1	04/11/05	04/15/05	KWG0505755	
N-Nitrosodi-n-propylamine	ND	U	5.0	3.2	1	04/11/05	04/15/05	KWG0505755	
Hexachloroethane	ND	U	5.0	2.2	1	04/11/05	04/15/05	KWG0505755	
Nitrobenzene	ND	U	5.0	2.0	1	04/11/05	04/15/05	KWG0505755	
Isophorone	ND	U	5.0	1.6	1	04/11/05	04/15/05	KWG0505755	
2-Nitrophenol	ND	U	5.0	2.6	1	04/11/05	04/15/05	KWG0505755	
2,4-Dimethylphenol	ND	U	25	5.5	1	04/11/05	04/15/05	KWG0505755	
Bis(2-chloroethoxy)methane	ND	U	5.0	1.3	1	04/11/05	04/15/05	KWG0505755	
2,4-Dichlorophenol	ND	U	5.0	1.8	1	04/11/05	04/15/05	KWG0505755	
Naphthalene	ND	U	5.0	1.3	1	04/11/05	04/15/05	KWG0505755	
4-Chloroaniline	ND	U	5.0	2.1	1	04/11/05	04/15/05	KWG0505755	
Hexachlorobutadiene	ND	U	5.0	1.4	1	04/11/05	04/15/05	KWG0505755	
Caprolactam	ND	U	12	12	1	04/11/05	04/15/05	KWG0505755	
Benzaldehyde	ND	U	10	8.8	1	04/11/05	04/15/05	KWG0505755	
4-Chloro-3-methylphenol	ND	U	5.0	2.1	1	04/11/05	04/15/05	KWG0505755	
2-Methylnaphthalene	ND	U	5.0	1.2	1	04/11/05	04/15/05	KWG0505755	
Hexachlorocyclopentadiene	ND	U	25	15	1	04/11/05	04/15/05	KWG0505755	
2,4,6-Trichlorophenol	ND	U	5.0	1.8	1	04/11/05	04/15/05	KWG0505755	
2,4,5-Trichlorophenol	ND	U	5.0	3.0	1	04/11/05	04/15/05	KWG0505755	
Biphenyl	ND	U	10	4.8	1	04/11/05	04/15/05	KWG0505755	
2-Chloronaphthalene	ND	U	5.0	3.6	1	04/11/05	04/15/05	KWG0505755	
2-Nitroaniline	ND	U	10	2.7	1	04/11/05	04/15/05	KWG0505755	
Dimethyl Phthalate	ND	U	5.0	1.8	1	04/11/05	04/15/05	KWG0505755	
2,6-Dinitrotoluene	ND	U	5.0	2.8	1	04/11/05	04/15/05	KWG0505755	
Acenaphthylene	ND	U	5.0	1.4	1	04/11/05	04/15/05	KWG0505755	
3-Nitroaniline	ND	U	10	2.6	1	04/11/05	04/15/05	KWG0505755	

Comments:

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG0505755-7

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Acenaphthene	ND	U	5.0	1.0	1	04/11/05	04/15/05	KWG0505755	
2,4-Dinitrophenol	ND	U	100	36	1	04/11/05	04/15/05	KWG0505755	
4-Nitrophenol	ND	U	50	30	1	04/11/05	04/15/05	KWG0505755	
Dibenzofuran	ND	U	5.0	1.3	1	04/11/05	04/15/05	KWG0505755	
2,4-Dinitrotoluene	ND	U	5.0	2.8	1	04/11/05	04/15/05	KWG0505755	
Diethyl Phthalate	ND	U	5.0	3.5	1	04/11/05	04/15/05	KWG0505755	
Fluorene	ND	U	5.0	1.7	1	04/11/05	04/15/05	KWG0505755	
4-Chlorophenyl Phenyl Ether	ND	U	5.0	2.0	1	04/11/05	04/15/05	KWG0505755	
4-Nitroaniline	ND	U	10	3.4	1	04/11/05	04/15/05	KWG0505755	
2-Methyl-4,6-dinitrophenol	ND	U	50	1.7	1	04/11/05	04/15/05	KWG0505755	
N-Nitrosodiphenylamine	ND	U	5.0	2.2	1	04/11/05	04/15/05	KWG0505755	
4-Bromophenyl Phenyl Ether	ND	U	5.0	1.4	1	04/11/05	04/15/05	KWG0505755	
Hexachlorobenzene	ND	U	5.0	2.1	1	04/11/05	04/15/05	KWG0505755	
Atrazine	ND	U	5.0	2.2	1	04/11/05	04/15/05	KWG0505755	
Pentachlorophenol	ND	U	50	8.5	1	04/11/05	04/15/05	KWG0505755	
Phenanthrene	ND	U	5.0	1.3	1	04/11/05	04/15/05	KWG0505755	
Anthracene	ND	U	5.0	1.4	1	04/11/05	04/15/05	KWG0505755	
Carbazole	ND	U	5.0	1.3	1	04/11/05	04/15/05	KWG0505755	
Di-n-butyl Phthalate	**8.2**		5.0	2.6	1	04/11/05	04/15/05	KWG0505755	
Fluoranthene	ND	U	5.0	2.2	1	04/11/05	04/15/05	KWG0505755	
Pyrene	ND	U	5.0	1.3	1	04/11/05	04/15/05	KWG0505755	
Butyl Benzyl Phthalate	ND	U	5.0	1.5	1	04/11/05	04/15/05	KWG0505755	
3,3'-Dichlorobenzidine	ND	U	50	3.7	1	04/11/05	04/15/05	KWG0505755	
Benz(a)anthracene	ND	U	5.0	1.4	1	04/11/05	04/15/05	KWG0505755	
Chrysene	ND	U	5.0	1.4	1	04/11/05	04/15/05	KWG0505755	
Bis(2-ethylhexyl) Phthalate	**7.7**	J	100	1.7	1	04/11/05	04/15/05	KWG0505755	
Di-n-octyl Phthalate	ND	U	5.0	1.2	1	04/11/05	04/15/05	KWG0505755	
Benzo(b)fluoranthene	ND	U	5.0	2.5	1	04/11/05	04/15/05	KWG0505755	
Benzo(k)fluoranthene	ND	U	5.0	2.5	1	04/11/05	04/15/05	KWG0505755	
Benzo(a)pyrene	ND	U	5.0	1.6	1	04/11/05	04/15/05	KWG0505755	
Indeno(1,2,3-cd)pyrene	ND	U	5.0	1.9	1	04/11/05	04/15/05	KWG0505755	
Dibenz(a,h)anthracene	ND	U	5.0	2.2	1	04/11/05	04/15/05	KWG0505755	
Benzo(g,h,i)perylene	ND	U	5.0	2.3	1	04/11/05	04/15/05	KWG0505755	

Comments:

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG0505755-7

Units: ug/Kg
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	68	11-87	04/15/05	Acceptable
Phenol-d6	79	20-99	04/15/05	Acceptable
Nitrobenzene-d5	81	10-99	04/15/05	Acceptable
2-Fluorobiphenyl	97	10-104	04/15/05	Acceptable
2,4,6-Tribromophenol	85	23-113	04/15/05	Acceptable
Terphenyl-d14	125	39-124	04/15/05	Outside Control Limits

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6	
TO63-IDW-01	K2502554-001	62	76	70	72	89	112	
Method Blank	KWG0505755-7	68	79	81	97	85	125	*
Batch QC	K2502499-011	54	71	65	74	81	97	
Batch QCMS	KWG0505755-1	55	69	62	76	88	99	
Batch QCDMS	KWG0505755-2	63	79	69	78	93	107	
Lab Control Sample	KWG0505755-5	69	82	82	82	91	115	
Duplicate Lab Control Sample	KWG0505755-6	66	75	76	79	86	110	

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	11-87	Sur5 = 2,4,6-Tribromophenol	23-113
Sur2 = Phenol-d6	20-99	Sur6 = Terphenyl-d14	39-124
Sur3 = Nitrobenzene-d5	10-99		
Sur4 = 2-Fluorobiphenyl	10-104		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 10:13

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F001.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	80,804	8.62	263,490	10.56	125,337	13.38
	Upper Limit ==>	161,608	9.12	526,980	11.06	250,674	13.88
	Lower Limit ==>	40,402	8.12	131,745	10.06	62,669	12.88
	ICAL Result ==>	67,549	8.74	217,092	10.70	117,159	13.52
Associated Analyses							
Method Blank	KWG0505755-7	66,962	8.61	205,309	10.54	99,715	13.37
Lab Control Sample	KWG0505755-5	65,827	8.61	222,793	10.55	107,039	13.38
Duplicate Lab Control Sample	KWG0505755-6	69,994	8.61	227,426	10.55	109,591	13.37
TO63-IDW-01	K2502554-001	68,493	8.61	222,203	10.54	108,397	13.37
Batch QC	K2502499-011	67,029	8.62	215,343	10.56	103,378	13.39
Batch QCMS	KWG0505755-1	69,522	8.63	216,074	10.56	109,049	13.40
Batch QCDMS	KWG0505755-2	67,141	8.63	221,018	10.57	108,420	13.41

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 10:13

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F001.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		Phenanthrene-d10		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	216,469	15.80	167,838	20.26	119,483	24.17
	Upper Limit ==>	432,938	16.30	335,676	20.76	238,966	24.67
	Lower Limit ==>	108,235	15.30	83,919	19.76	59,742	23.67
	ICAL Result ==>	187,961	15.94	149,473	20.44	112,203	24.42
Associated Analyses							
Method Blank	KWG0505755-7	157,563	15.79	120,134	20.23	84,870	24.15
Lab Control Sample	KWG0505755-5	169,169	15.79	125,989	20.25	96,643	24.16
Duplicate Lab Control Sample	KWG0505755-6	183,616	15.79	137,373	20.24	104,573	24.16
TO63-IDW-01	K2502554-001	175,926	15.78	125,528	20.23	100,858	24.15
Batch QC	K2502499-011	167,820	15.80	123,855	20.27	99,372	24.23
Batch QCMS	KWG0505755-1	176,835	15.82	135,187	20.31	102,944	24.30
Batch QCDMS	KWG0505755-2	177,660	15.83	134,507	20.32	104,154	24.32

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 11:01

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F002.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	66,215	8.62	213,819	10.55	106,564	13.37
	Upper Limit ==>	132,430	9.12	427,638	11.05	213,128	13.87
	Lower Limit ==>	33,108	8.12	106,910	10.05	53,282	12.87
	ICAL Result ==>	76,970	8.75	249,924	10.68	131,809	13.51
Associated Analyses							
Method Blank	KWG0505755-7	66,962	8.61	205,309	10.54	99,715	13.37
Lab Control Sample	KWG0505755-5	65,827	8.61	222,793	10.55	107,039	13.38
Duplicate Lab Control Sample	KWG0505755-6	69,994	8.61	227,426	10.55	109,591	13.37
TO63-IDW-01	K2502554-001	68,493	8.61	222,203	10.54	108,397	13.37
Batch QC	K2502499-011	67,029	8.62	215,343	10.56	103,378	13.39
Batch QCMS	KWG0505755-1	69,522	8.63	216,074	10.56	109,049	13.40
Batch QCDMS	KWG0505755-2	67,141	8.63	221,018	10.57	108,420	13.41

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 11:01

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F002.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		Phenanthrene-d10		Chrysene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	174,402	15.79	127,566	20.24
	Upper Limit ==>	348,804	16.29	255,132	20.74
	Lower Limit ==>	87,201	15.29	63,783	19.74
	ICAL Result ==>	213,117	15.94	160,731	20.43
Associated Analyses					
Method Blank	KWG0505755-7	157,563	15.79	120,134	20.23
Lab Control Sample	KWG0505755-5	169,169	15.79	125,989	20.25
Duplicate Lab Control Sample	KWG0505755-6	183,616	15.79	137,373	20.24
TO63-IDW-01	K2502554-001	175,926	15.78	125,528	20.23
Batch QC	K2502499-011	167,820	15.80	123,855	20.27
Batch QCMS	KWG0505755-1	176,835	15.82	135,187	20.31
Batch QCDMS	KWG0505755-2	177,660	15.83	134,507	20.32

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005
Date Analyzed: 04/15/2005

Matrix Spike/Duplicate Matrix Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Sample Name: Batch QC
Lab Code: K2502499-011

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry

Level: Low
Extraction Lot: KWG0505755

Analyte Name	Sample Result	Batch QCMS KWG0505755-1 Matrix Spike			Batch QCDMS KWG0505755-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Phenol	7.2	103	145	66	121	146	78	21-106	17	40
2-Chlorophenol	ND	95.5	145	66	108	146	74	23-94	13	40
N-Nitrosodi-n-propylamine	ND	94.5	145	65	105	146	72	22-115	10	40
4-Chloro-3-methylphenol	ND	104	145	71	116	146	80	21-112	11	40
Acenaphthene	ND	113	145	78	115	146	79	10-140	2	40
4-Nitrophenol	ND	126	145	87	105	146	72	24-120	19	40
2,4-Dinitrotoluene	ND	122	145	84	134	146	92	28-126	9	40
Pentachlorophenol	ND	94.1	145	65	90.4	146	62	10-132	4	40
Pyrene	7.0	121	145	78	125	146	81	10-173	3	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005
Date Analyzed: 04/15/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0505755

	Lab Control Sample KWG0505755-5 Lab Control Spike			Duplicate Lab Control Sample KWG0505755-6 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2,4,5-Tetrachlorobenzene	179	250	72	179	250	72	50-85	0	40
Phenol	201	250	80	187	250	75	30-107	7	40
Bis(2-chloroethyl) Ether	185	250	74	170	250	68	35-100	8	40
2-Chlorophenol	191	250	76	182	250	73	34-99	5	40
2-Methylphenol	179	250	71	164	250	66	17-97	8	40
Bis(2-chloroisopropyl) Ether	181	250	72	165	250	66	30-101	9	40
Acetophenone	205	250	82	192	250	77	48-100	7	40
4-Methylphenol	179	250	72	172	250	69	14-99	4	40
N-Nitrosodi-n-propylamine	193	250	77	179	250	72	35-110	7	40
Hexachloroethane	176	250	71	169	250	67	38-98	4	40
Nitrobenzene	181	250	72	169	250	68	35-100	7	40
Isophorone	203	250	81	196	250	79	42-110	3	40
2-Nitrophenol	195	250	78	192	250	77	35-106	2	40
2,4-Dimethylphenol	93.1	250	37	96.1	250	38	10-72	3	40
Bis(2-chloroethoxy)methane	179	250	71	177	250	71	37-99	1	40
2,4-Dichlorophenol	188	250	75	184	250	74	38-98	2	40
Naphthalene	176	250	71	171	250	69	39-97	3	40
4-Chloroaniline	124	250	49	126	250	50	21-86	2	40
Hexachlorobutadiene	162	250	65	156	250	62	38-96	4	40
Caprolactam	172	250	69	182	250	73	32-101	5	40
Benzaldehyde	161	250	65	157	250	63	47-88	3	40
4-Chloro-3-methylphenol	184	250	74	181	250	73	35-102	2	40
2-Methylnaphthalene	154	250	61	156	250	62	38-95	2	40
Hexachlorocyclopentadiene	87.3	250	35	90.8	250	36	15-96	4	40
2,4,6-Trichlorophenol	199	250	80	190	250	76	39-99	5	40
2,4,5-Trichlorophenol	207	250	83	198	250	79	39-101	4	40
Biphenyl	198	250	79	198	250	79	52-90	0	40
2-Chloronaphthalene	178	250	71	177	250	71	37-102	0	40
2-Nitroaniline	188	250	75	182	250	73	44-105	3	40
Dimethyl Phthalate	199	250	80	190	250	76	44-107	5	40
2,6-Dinitrotoluene	195	250	78	192	250	77	48-109	1	40
Acenaphthylene	199	250	79	201	250	80	46-106	1	40
3-Nitroaniline	187	250	75	182	250	73	40-106	3	40
Acenaphthene	184	250	73	185	250	74	42-98	1	40
2,4-Dinitrophenol	192	250	77	181	250	73	21-120	6	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005
Date Analyzed: 04/15/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0505755

	Lab Control Sample KWG0505755-5 Lab Control Spike			Duplicate Lab Control Sample KWG0505755-6 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
4-Nitrophenol	211	250	85	207	250	83	43-119	2	40
Dibenzofuran	183	250	73	182	250	73	41-99	1	40
2,4-Dinitrotoluene	220	250	88	215	250	86	50-117	2	40
Diethyl Phthalate	214	250	86	200	250	80	45-114	7	40
Fluorene	193	250	77	190	250	76	43-104	1	40
4-Chlorophenyl Phenyl Ether	187	250	75	190	250	76	42-103	2	40
4-Nitroaniline	200	250	80	195	250	78	41-112	3	40
2-Methyl-4,6-dinitrophenol	207	250	83	211	250	84	37-113	2	40
N-Nitrosodiphenylamine	219	250	88	220	250	88	27-123	0	40
4-Bromophenyl Phenyl Ether	194	250	78	181	250	73	47-103	7	40
Hexachlorobenzene	203	250	81	189	250	76	49-107	7	40
Atrazine	229	250	91	215	250	86	66-111	6	40
Pentachlorophenol	149	250	60	144	250	58	25-114	4	40
Phenanthrene	201	250	80	188	250	75	48-101	7	40
Anthracene	213	250	85	189	250	76	50-106	12	40
Carbazole	219	250	88	207	250	83	53-115	6	40
Di-n-butyl Phthalate	248	250	99	235	250	94	49-126	5	40
Fluoranthene	223	250	89	214	250	86	51-119	4	40
Pyrene	226	250	90	213	250	85	51-109	6	40
Butyl Benzyl Phthalate	232	250	93	216	250	86	54-123	8	40
3,3'-Dichlorobenzidine	123	250	49	138	250	55	10-104	11	40
Benz(a)anthracene	218	250	87	212	250	85	57-115	3	40
Chrysene	238	250	95	216	250	87	59-120	9	40
Bis(2-ethylhexyl) Phthalate	239	250	96	224	250	90	52-136	7	40
Di-n-octyl Phthalate	224	250	90	216	250	87	54-127	4	40
Benzo(b)fluoranthene	225	250	90	218	250	87	54-116	3	40
Benzo(k)fluoranthene	224	250	90	212	250	85	56-115	5	40
Benzo(a)pyrene	223	250	89	215	250	86	53-120	4	40
Indeno(1,2,3-cd)pyrene	218	250	87	209	250	84	52-125	4	40
Dibenz(a,h)anthracene	225	250	90	206	250	83	53-122	8	40
Benzo(g,h,i)perylene	219	250	87	202	250	81	45-124	8	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/11/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/15/2005
		Time Analyzed:	11:41

Method Blank Summary
Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**File ID:**	J:\MS10\DATA\041505\0415F003.D
Lab Code:	KWG0505755-7	**Instrument ID:**	MS10
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C	**Extraction Lot:**	KWG0505755

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0505755-5	J:\MS10\DATA\041505\0415F004.D	04/15/05	12:22
Duplicate Lab Control Sample	KWG0505755-6	J:\MS10\DATA\041505\0415F005.D	04/15/05	13:01
TO63-IDW-01	K2502554-001	J:\MS10\DATA\041505\0415F006.D	04/15/05	13:40
Batch QC	K2502499-011	J:\MS10\DATA\041505\0415F010.D	04/15/05	16:22
Batch QCMS	KWG0505755-1	J:\MS10\DATA\041505\0415F011.D	04/15/05	17:01
Batch QCDMS	KWG0505755-2	J:\MS10\DATA\041505\0415F012.D	04/15/05	17:41

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554

Lab Control Sample/Duplicate Lab Control Sample Summary
Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Lab Control Sample	**Sample Name:**	Duplicate Lab Control Sample
Lab Code:	KWG0505755-5	**Lab Code:**	KWG0505755-6
File ID:	J:\MS10\DATA\041505\0415F004.D	**File ID:**	J:\MS10\DATA\041505\0415F005.D
Instrument ID:	MS10	**Instrument ID:**	MS10
Date Extracted:	04/11/2005	**Date Extracted:**	04/11/2005
Date Analyzed:	04/15/2005	**Date Analyzed:**	04/15/2005
Time Analyzed:	12:22	**Time Analyzed:**	13:01

Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C	**Extraction Lot:**	KWG0505755

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0505755-7	J:\MS10\DATA\041505\0415F003.D	04/15/05	11:41
TO63-IDW-01	K2502554-001	J:\MS10\DATA\041505\0415F006.D	04/15/05	13:40
Batch QC	K2502499-011	J:\MS10\DATA\041505\0415F010.D	04/15/05	16:22
Batch QCMS	KWG0505755-1	J:\MS10\DATA\041505\0415F011.D	04/15/05	17:01
Batch QCDMS	KWG0505755-2	J:\MS10\DATA\041505\0415F012.D	04/15/05	17:41

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 10:13

Tune Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415T001.D
Instrument ID: MS10
Column:

Analysis Method: 8270C
Analysis Lot: KWG0506208

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	30	80	38.5	29825	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	45.4	35120	PASS
70	69	0	2	1.3	457	PASS
127	198	25	75	38.5	29832	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	77408	PASS
199	198	5	9	6.7	5186	PASS
275	198	10	30	26.0	20104	PASS
365	198	1	100	4.4	3416	PASS
441	443	0	100	86.1	10226	PASS
442	198	40	110	83.6	64712	PASS
443	442	15	24	18.3	11870	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG0506208-2	J:\MS10\DATA\041505\0415F001.D	04/15/2005	10:13	
Continuing Calibration Verification	KWG0506208-2	J:\MS10\DATA\041505\0415F002.D	04/15/2005	11:01	
Method Blank	KWG0505755-7	J:\MS10\DATA\041505\0415F003.D	04/15/2005	11:41	
Lab Control Sample	KWG0505755-5	J:\MS10\DATA\041505\0415F004.D	04/15/2005	12:22	
Duplicate Lab Control Sample	KWG0505755-6	J:\MS10\DATA\041505\0415F005.D	04/15/2005	13:01	
TO63-IDW-01	K2502554-001	J:\MS10\DATA\041505\0415F006.D	04/15/2005	13:40	
Batch QC	K2502499-011	J:\MS10\DATA\041505\0415F010.D	04/15/2005	16:22	
Batch QCMS	KWG0505755-1	J:\MS10\DATA\041505\0415F011.D	04/15/2005	17:01	
Batch QCDMS	KWG0505755-2	J:\MS10\DATA\041505\0415F012.D	04/15/2005	17:41	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS10\DATA\041205\0412F003.D	H	J:\MS10\DATA\041205\0412F010.D
B	J:\MS10\DATA\041205\0412F004.D	I	J:\MS10\DATA\041205\0412F011.D
C	J:\MS10\DATA\041205\0412F005.D	J	J:\MS10\DATA\041205\0412F012.D
D	J:\MS10\DATA\041205\0412F006.D	K	J:\MS10\DATA\041205\0412F013.D
E	J:\MS10\DATA\041205\0412F007.D	L	J:\MS10\DATA\041205\0412F014.D
F	J:\MS10\DATA\041205\0412F008.D	M	J:\MS10\DATA\041205\0412F015.D
G	J:\MS10\DATA\041205\0412F009.D	N	J:\MS10\DATA\041205\0412F016.D

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
1,2,4,5-Tetrachlorobenzene															
										I	100	0.729	J	200	0.704
	K	1000	0.740	L	2000	0.722	M	3000	0.746	N	5000	0.767			
‡ Phenol	A	100	1.55	B	500	1.30	C	1000	1.29	D	2000	1.37	E	4000	1.39
	F	6000	1.32	G	8000	1.30	H	10000	1.28						
Bis(2-chloroethyl) Ether	A	100	1.06	B	200	1.05	C	500	1.09	D	1000	1.18	E	2000	1.14
	F	3000	1.12	G	4000	1.13	H	5000	1.15						
2-Chlorophenol	A	100	1.18	B	500	1.05	C	1000	1.06	D	2000	1.14	E	4000	1.11
	F	6000	1.12	G	8000	1.09	H	10000	1.11						
2-Methylphenol	A	100	0.983	B	500	0.831	C	1000	0.820	D	2000	0.858	E	4000	0.830
	F	6000	0.817	G	8000	0.803	H	10000	0.817						
Bis(2-chloroisopropyl) Ether	A	100	2.28	B	200	2.19	C	500	2.10	D	1000	2.22	E	2000	2.13
	F	3000	1.99	G	4000	1.94	H	5000	1.90						
Acetophenone															
										I	100	1.84	J	200	1.66
	K	1000	1.59	L	2000	1.57	M	3000	1.60	N	5000	1.56			
4-Methylphenol	A	100	1.35	B	500	1.21	C	1000	1.19	D	2000	1.26	E	4000	1.23
	F	6000	1.22	G	8000	1.16	H	10000	1.19						

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
† N-Nitrosodi-n-propylamine	A	100	1.06	B	200	0.902	C	500	0.901	D	1000	0.902	E	2000	0.920
	F	3000	0.890	G	4000	0.852	H	5000	0.820						
Hexachloroethane	A	100	0.601	B	200	0.612	C	500	0.619	D	1000	0.636	E	2000	0.642
	F	3000	0.649	G	4000	0.643	H	5000	0.651						
Nitrobenzene	A	100	1.42	B	200	1.38	C	500	1.37	D	1000	1.43	E	2000	1.46
	F	3000	1.40	G	4000	1.40	H	5000	1.41						
Isophorone	A	100	0.581	B	200	0.588	C	500	0.620	D	1000	0.607	E	2000	0.628
	F	3000	0.641	G	4000	0.633	H	5000	0.638						
‡ 2-Nitrophenol	A	100	0.185	B	500	0.191	C	1000	0.187	D	2000	0.197	E	4000	0.197
	F	6000	0.207	G	8000	0.206	H	10000	0.207						
2,4-Dimethylphenol	A	100	0.275	B	500	0.259	C	1000	0.253	D	2000	0.273	E	4000	0.263
	F	6000	0.274	G	8000	0.268	H	10000	0.266						
Bis(2-chloroethoxy)methane	A	100	0.383	B	200	0.388	C	500	0.405	D	1000	0.414	E	2000	0.421
	F	3000	0.428	G	4000	0.425	H	5000	0.423						
‡ 2,4-Dichlorophenol	A	100	0.307	B	500	0.280	C	1000	0.278	D	2000	0.301	E	4000	0.299
	F	6000	0.307	G	8000	0.309	H	10000	0.303						
Naphthalene	A	100	0.916	B	200	0.930	C	500	0.987	D	1000	0.965	E	2000	0.986
	F	3000	1.02	G	4000	1.01	H	5000	1.01						
4-Chloroaniline	A	100	0.391	B	200	0.429	C	500	0.445	D	1000	0.463	E	2000	0.494
	F	3000	0.494	G	4000	0.484	H	5000	0.456						
‡ Hexachlorobutadiene	A	100	0.225	B	200	0.229	C	500	0.246	D	1000	0.237	E	2000	0.253
	F	3000	0.258	G	4000	0.258	H	5000	0.256						

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† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Caprolactam															
										I	100	0.192	J	200	0.183
	K	1000	0.176	L	2000	0.183	M	3000	0.194	N	5000	0.192			
Benzaldehyde															
										I	100	0.921	J	200	0.862
	K	1000	0.895	L	2000	0.933	M	3000	0.919	N	5000	0.929			
‡ 4-Chloro-3-methylphenol	A	100	0.296	B	500	0.271	C	1000	0.272	D	2000	0.284	E	4000	0.281
	F	6000	0.300	G	8000	0.290	H	10000	0.295						
2-Methylnaphthalene	A	100	0.523	B	200	0.557	C	500	0.553	D	1000	0.551	E	2000	0.596
	F	3000	0.616	G	4000	0.603	H	5000	0.588						
† Hexachlorocyclopentadiene							C	500	0.237	D	1000	0.309	E	2000	0.343
	F	3000	0.361	G	4000	0.369	H	5000	0.381						
‡ 2,4,6-Trichlorophenol	A	100	0.393	B	500	0.373	C	1000	0.388	D	2000	0.413	E	4000	0.407
	F	6000	0.414	G	8000	0.406	H	10000	0.420						
2,4,5-Trichlorophenol	A	100	0.432	B	500	0.403	C	1000	0.428	D	2000	0.445	E	4000	0.441
	F	6000	0.451	G	8000	0.434	H	10000	0.439						
Biphenyl															
										I	100	1.46	J	200	1.37
	K	1000	1.48	L	2000	1.47	M	3000	1.49	N	5000	1.51			
2-Chloronaphthalene	A	100	0.493	B	200	0.485	C	500	0.516	D	1000	0.525	E	2000	0.540
	F	3000	0.557	G	4000	0.531	H	5000	0.554						
2-Nitroaniline	A	100	0.450	B	200	0.453	C	500	0.487	D	1000	0.501	E	2000	0.509
	F	3000	0.516	G	4000	0.497	H	5000	0.505						
Dimethyl Phthalate	A	100	1.35	B	200	1.34	C	500	1.41	D	1000	1.46	E	2000	1.46
	F	3000	1.47	G	4000	1.44	H	5000	1.48						

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Client: Battelle Memorial Institute
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Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
2,6-Dinitrotoluene	A	100	0.321	B	200	0.324	C	500	0.350	D	1000	0.354	E	2000	0.349
	F	3000	0.355	G	4000	0.364	H	5000	0.355						
Acenaphthylene	A	100	1.64	B	200	1.69	C	500	1.77	D	1000	1.76	E	2000	1.79
	F	3000	1.84	G	4000	1.79	H	5000	1.85						
3-Nitroaniline	A	100	0.280	B	200	0.316	C	500	0.338	D	1000	0.358	E	2000	0.363
	F	3000	0.361	G	4000	0.357	H	5000	0.355						
‡ Acenaphthene	A	100	0.989	B	200	0.980	C	500	1.04	D	1000	1.05	E	2000	1.07
	F	3000	1.06	G	4000	1.06	H	5000	1.06						
† 2,4-Dinitrophenol							C	1000	0.0535	D	2000	0.113	E	4000	0.146
	F	6000	0.176	G	8000	0.176	H	10000	0.194						
† 4-Nitrophenol				B	500	0.135	C	1000	0.156	D	2000	0.195	E	4000	0.204
	F	6000	0.226	G	8000	0.227	H	10000	0.240						
Dibenzofuran	A	100	1.69	B	200	1.64	C	500	1.67	D	1000	1.76	E	2000	1.77
	F	3000	1.78	G	4000	1.78	H	5000	1.78						
2,4-Dinitrotoluene	A	100	0.345	B	200	0.402	C	500	0.409	D	1000	0.448	E	2000	0.451
	F	3000	0.469	G	4000	0.467	H	5000	0.466						
Diethyl Phthalate	A	100	1.41	B	200	1.24	C	500	1.29	D	1000	1.35	E	2000	1.34
	F	3000	1.39	G	4000	1.35	H	5000	1.38						
Fluorene	A	100	1.16	B	200	1.11	C	500	1.21	D	1000	1.27	E	2000	1.28
	F	3000	1.29	G	4000	1.26	H	5000	1.30						
4-Chlorophenyl Phenyl Ether	A	100	0.630	B	200	0.590	C	500	0.647	D	1000	0.656	E	2000	0.656
	F	3000	0.675	G	4000	0.657	H	5000	0.676						

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Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
4-Nitroaniline	A	100	0.257	B	200	0.311	C	500	0.321	D	1000	0.343	E	2000	0.350
	F	3000	0.351	G	4000	0.363	H	5000	0.366						
2-Methyl-4,6-dinitrophenol							C	1000	0.181	D	2000	0.232	E	4000	0.246
	F	6000	0.266	G	8000	0.254	H	10000	0.272						
‡ N-Nitrosodiphenylamine	A	100	0.773	B	200	0.806	C	500	0.799	D	1000	0.866	E	2000	0.857
	F	3000	0.886	G	4000	0.841	H	5000	0.896						
4-Bromophenyl Phenyl Ether	A	100	0.211	B	200	0.218	C	500	0.228	D	1000	0.230	E	2000	0.246
	F	3000	0.241	G	4000	0.237	H	5000	0.248						
Hexachlorobenzene	A	100	0.235	B	200	0.246	C	500	0.256	D	1000	0.254	E	2000	0.273
	F	3000	0.267	G	4000	0.275	H	5000	0.274						
Atrazine										I	100	0.247	J	200	0.240
	K	1000	0.240	L	2000	0.243	M	3000	0.239	N	5000	0.240			
‡ Pentachlorophenol							C	1000	0.0611	D	2000	0.0886	E	4000	0.112
	F	6000	0.121	G	8000	0.126	H	10000	0.134						
Phenanthrene	A	100	1.12	B	200	1.11	C	500	1.10	D	1000	1.17	E	2000	1.20
	F	3000	1.19	G	4000	1.21	H	5000	1.21						
Anthracene	A	100	1.10	B	200	1.10	C	500	1.14	D	1000	1.16	E	2000	1.19
	F	3000	1.21	G	4000	1.23	H	5000	1.21						
Carbazole	A	100	1.02	B	200	0.998	C	500	0.994	D	1000	1.07	E	2000	1.10
	F	3000	1.09	G	4000	1.12	H	5000	1.09						
Di-n-butyl Phthalate	A	100	1.46	B	200	1.29	C	500	1.33	D	1000	1.36	E	2000	1.43
	F	3000	1.42	G	4000	1.45	H	5000	1.41						

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Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
‡ Fluoranthene	A	100	1.18	B	200	1.15	C	500	1.19	D	1000	1.19	E	2000	1.27
	F	3000	1.23	G	4000	1.26	H	5000	1.26						
Pyrene	A	100	1.55	B	200	1.52	C	500	1.50	D	1000	1.57	E	2000	1.61
	F	3000	1.57	G	4000	1.63	H	5000	1.47						
Butyl Benzyl Phthalate	A	100	0.735	B	200	0.719	C	500	0.723	D	1000	0.747	E	2000	0.763
	F	3000	0.768	G	4000	0.773	H	5000	0.731						
3,3'-Dichlorobenzidine	A	100	0.488	B	500	0.471	C	1000	0.462	D	2000	0.470	E	4000	0.480
	F	6000	0.479	G	8000	0.478	H	10000	0.465						
Benz(a)anthracene	A	100	1.26	B	200	1.24	C	500	1.27	D	1000	1.31	E	2000	1.33
	F	3000	1.34	G	4000	1.35	H	5000	1.31						
Chrysene	A	100	1.17	B	200	1.14	C	500	1.12	D	1000	1.18	E	2000	1.20
	F	3000	1.18	G	4000	1.18	H	5000	1.14						
Bis(2-ethylhexyl) Phthalate	A	100	1.01	B	200	0.916	C	500	0.892	D	1000	0.972	E	2000	0.994
	F	3000	0.996	G	4000	0.976	H	5000	0.947						
‡ Di-n-octyl Phthalate	A	100	1.97	B	200	1.93	C	500	2.02	D	1000	1.95	E	2000	2.08
	F	3000	2.11	G	4000	2.08	H	5000	2.14						
Benzo(b)fluoranthene	A	100	1.37	B	200	1.39	C	500	1.40	D	1000	1.36	E	2000	1.44
	F	3000	1.47	G	4000	1.42	H	5000	1.46						
Benzo(k)fluoranthene	A	100	1.37	B	200	1.33	C	500	1.40	D	1000	1.39	E	2000	1.43
	F	3000	1.40	G	4000	1.47	H	5000	1.50						
‡ Benzo(a)pyrene	A	100	1.34	B	200	1.28	C	500	1.33	D	1000	1.34	E	2000	1.43
	F	3000	1.42	G	4000	1.42	H	5000	1.43						

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Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Indeno(1,2,3-cd)pyrene	A	100	1.14	B	200	1.06	C	500	1.14	D	1000	1.17	E	2000	1.21
	F	3000	1.18	G	4000	1.21	H	5000	1.22						
Dibenz(a,h)anthracene	A	100	1.04	B	200	1.03	C	500	1.11	D	1000	1.12	E	2000	1.18
	F	3000	1.22	G	4000	1.19	H	5000	1.22						
Benzo(g,h,i)perylene	A	100	1.13	B	200	1.09	C	500	1.18	D	1000	1.18	E	2000	1.22
	F	3000	1.23	G	4000	1.22	H	5000	1.21						
2-Fluorophenol	A	100	0.971	B	200	1.02	C	500	1.11	D	1000	1.14	E	2000	1.15
	F	3000	1.13	G	4000	1.13	H	5000	1.14						
Phenol-d6	A	100	1.14	B	200	1.25	C	500	1.35	D	1000	1.38	E	2000	1.43
	F	3000	1.35	G	4000	1.38	H	5000	1.36						
Nitrobenzene-d5	A	100	1.24	B	200	1.24	C	500	1.34	D	1000	1.37	E	2000	1.41
	F	3000	1.36	G	4000	1.38	H	5000	1.37						
2-Fluorobiphenyl	A	100	1.25	B	200	1.24	C	500	1.30	D	1000	1.32	E	2000	1.28
	F	3000	1.35	G	4000	1.32	H	5000	1.33						
2,4,6-Tribromophenol	A	100	0.0947	B	200	0.100	C	500	0.110	D	1000	0.123	E	2000	0.134
	F	3000	0.132	G	4000	0.136	H	5000	0.142						
Terphenyl-d14	A	100	0.886	B	200	0.898	C	500	0.899	D	1000	0.934	E	2000	0.946
	F	3000	0.941	G	4000	0.948	H	5000	0.925						
‡ 1,4-Dichlorobenzene	A	100	1.31	B	200	1.36	C	500	1.36	D	1000	1.44	E	2000	1.46
	F	3000	1.44	G	4000	1.49	H	5000	1.43						

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Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
1,2,4,5-Tetrachlorobenzene	TRG	AverageRF	% RSD	2.9		≤ 15	0.735		0.01
‡ Phenol	MS	AverageRF	% RSD	6.6		≤ 15	1.35		0.01
Bis(2-chloroethyl) Ether	TRG	AverageRF	% RSD	3.9		≤ 15	1.12		0.01
2-Chlorophenol	MS	AverageRF	% RSD	3.7		≤ 15	1.11		0.01
2-Methylphenol	TRG	AverageRF	% RSD	6.9		≤ 15	0.845		0.01
Bis(2-chloroisopropyl) Ether	TRG	AverageRF	% RSD	6.6		≤ 15	2.09		0.01
Acetophenone	TRG	AverageRF	% RSD	6.5		≤ 15	1.64		0.01
4-Methylphenol	TRG	AverageRF	% RSD	4.8		≤ 15	1.23		0.01
† N-Nitrosodi-n-propylamine	MS	AverageRF	% RSD	7.6		≤ 15	0.906		0.05
Hexachloroethane	TRG	AverageRF	% RSD	2.9		≤ 15	0.632		0.01
Nitrobenzene	TRG	AverageRF	% RSD	2.0		≤ 15	1.41		0.01
Isophorone	TRG	AverageRF	% RSD	3.7		≤ 15	0.617		0.01
‡ 2-Nitrophenol	TRG	AverageRF	% RSD	4.6		≤ 15	0.197		0.01
2,4-Dimethylphenol	TRG	AverageRF	% RSD	3.0		≤ 15	0.266		0.01
Bis(2-chloroethoxy)methane	TRG	AverageRF	% RSD	4.2		≤ 15	0.411		0.01
‡ 2,4-Dichlorophenol	TRG	AverageRF	% RSD	4.1		≤ 15	0.298		0.01
Naphthalene	TRG	AverageRF	% RSD	3.9		≤ 15	0.978		0.01
4-Chloroaniline	TRG	AverageRF	% RSD	7.8		≤ 15	0.457		0.01
‡ Hexachlorobutadiene	TRG	AverageRF	% RSD	5.5		≤ 15	0.245		0.01
Caprolactam	TRG	AverageRF	% RSD	3.8		≤ 15	0.187		0.01
Benzaldehyde	TRG	AverageRF	% RSD	3.0		≤ 15	0.910		0.01
‡ 4-Chloro-3-methylphenol	MS	AverageRF	% RSD	3.8		≤ 15	0.286		0.01
2-Methylnaphthalene	TRG	AverageRF	% RSD	5.6		≤ 15	0.573		0.01
† Hexachlorocyclopentadiene	TRG	AverageRF	% RSD	16.0	*	≤ 15	0.333		0.05
‡ 2,4,6-Trichlorophenol	TRG	AverageRF	% RSD	3.9		≤ 15	0.402		0.01
2,4,5-Trichlorophenol	TRG	AverageRF	% RSD	3.4		≤ 15	0.434		0.01
Biphenyl	TRG	AverageRF	% RSD	3.3		≤ 15	1.46		0.01
2-Chloronaphthalene	TRG	AverageRF	% RSD	5.0		≤ 15	0.525		0.01
2-Nitroaniline	TRG	AverageRF	% RSD	5.1		≤ 15	0.490		0.01
Dimethyl Phthalate	TRG	AverageRF	% RSD	3.9		≤ 15	1.43		0.01
2,6-Dinitrotoluene	TRG	AverageRF	% RSD	4.4		≤ 15	0.346		0.01
Acenaphthylene	TRG	AverageRF	% RSD	4.0		≤ 15	1.77		0.01
3-Nitroaniline	TRG	AverageRF	% RSD	8.6		≤ 15	0.341		0.01
‡ Acenaphthene	MS	AverageRF	% RSD	3.4		≤ 15	1.04		0.01
† 2,4-Dinitrophenol	TRG	Quadratic	COD	0.998		≥ 0.990	0.143		0.05
† 4-Nitrophenol	MS	AverageRF	% RSD	19.8	*	≤ 15	0.198		0.05
Dibenzofuran	TRG	AverageRF	% RSD	3.3		≤ 15	1.73		0.01
2,4-Dinitrotoluene	MS	AverageRF	% RSD	10.1		≤ 15	0.432		0.01
Diethyl Phthalate	TRG	AverageRF	% RSD	4.1		≤ 15	1.34		0.01
Fluorene	TRG	AverageRF	% RSD	5.6		≤ 15	1.23		0.01
4-Chlorophenyl Phenyl Ether	TRG	AverageRF	% RSD	4.3		≤ 15	0.648		0.01
4-Nitroaniline	TRG	AverageRF	% RSD	10.8		≤ 15	0.333		0.01

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Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005

Initial Calibration Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration ID: CAL4375
Instrument ID: MS10

Column: MS

Analyte Name	Compound Type	Calibration Evaluation					RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q	Minimum RRF
2-Methyl-4,6-dinitrophenol	TRG	AverageRF	% RSD	13.6		≤ 15	0.242		0.01
‡ N-Nitrosodiphenylamine	TRG	AverageRF	% RSD	5.2		≤ 15	0.841		0.01
4-Bromophenyl Phenyl Ether	TRG	AverageRF	% RSD	5.7		≤ 15	0.233		0.01
Hexachlorobenzene	TRG	AverageRF	% RSD	5.7		≤ 15	0.260		0.01
Atrazine	TRG	AverageRF	% RSD	1.3		≤ 15	0.242		0.01
‡ Pentachlorophenol	MS	AverageRF	% RSD	25.5	*	≤ 15	0.107		0.01
Phenanthrene	TRG	AverageRF	% RSD	4.1		≤ 15	1.16		0.01
Anthracene	TRG	AverageRF	% RSD	4.2		≤ 15	1.17		0.01
Carbazole	TRG	AverageRF	% RSD	4.6		≤ 15	1.06		0.01
Di-n-butyl Phthalate	TRG	AverageRF	% RSD	4.5		≤ 15	1.39		0.01
‡ Fluoranthene	TRG	AverageRF	% RSD	3.7		≤ 15	1.22		0.01
Pyrene	MS	AverageRF	% RSD	3.5		≤ 15	1.55		0.01
Butyl Benzyl Phthalate	TRG	AverageRF	% RSD	2.8		≤ 15	0.745		0.01
3,3'-Dichlorobenzidine	TRG	AverageRF	% RSD	1.8		≤ 15	0.474		0.01
Benz(a)anthracene	TRG	AverageRF	% RSD	3.1		≤ 15	1.30		0.01
Chrysene	TRG	AverageRF	% RSD	2.3		≤ 15	1.16		0.01
Bis(2-ethylhexyl) Phthalate	TRG	AverageRF	% RSD	4.4		≤ 15	0.964		0.01
‡ Di-n-octyl Phthalate	TRG	AverageRF	% RSD	3.9		≤ 15	2.03		0.01
Benzo(b)fluoranthene	TRG	AverageRF	% RSD	3.0		≤ 15	1.41		0.01
Benzo(k)fluoranthene	TRG	AverageRF	% RSD	3.8		≤ 15	1.41		0.01
‡ Benzo(a)pyrene	TRG	AverageRF	% RSD	4.2		≤ 15	1.37		0.01
Indeno(1,2,3-cd)pyrene	TRG	AverageRF	% RSD	4.6		≤ 15	1.17		0.01
Dibenz(a,h)anthracene	TRG	AverageRF	% RSD	6.6		≤ 15	1.14		0.01
Benzo(g,h,i)perylene	TRG	AverageRF	% RSD	4.2		≤ 15	1.18		0.01
2-Fluorophenol	SURR	AverageRF	% RSD	6.1		≤ 15	1.10		0.01
Phenol-d6	SURR	AverageRF	% RSD	6.9		≤ 15	1.33		0.01
Nitrobenzene-d5	SURR	AverageRF	% RSD	4.7		≤ 15	1.34		0.01
2-Fluorobiphenyl	SURR	AverageRF	% RSD	2.8		≤ 15	1.30		0.01
2,4,6-Tribromophenol	SURR	AverageRF	% RSD	14.5		≤ 15	0.122		0.01
Terphenyl-d14	SURR	AverageRF	% RSD	2.6		≤ 15	0.922		0.01
‡ 1,4-Dichlorobenzene	MS	AverageRF	% RSD	4.4		≤ 15	1.41		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005
Date Analyzed: 04/12/2005

Second Source Calibration Verification
Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard
Analysis Method: 8270C

Calibration ID: CAL4375
Units: ng/ml

File ID: J:\MS10\DATA\041205\0412F017.D
J:\MS10\DATA\041205\0412F018.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
1,2,4,5-Tetrachlorobenzene	3000	3600	0.735	0.878	20	NA	± 30 %	AverageRF
‡ Phenol	3000	3500	1.35	1.56	16	NA	± 20 %	AverageRF
Bis(2-chloroethyl) Ether	3000	3000	1.12	1.12	0	NA	± 30 %	AverageRF
2-Chlorophenol	3000	3300	1.11	1.22	10	NA	± 30 %	AverageRF
2-Methylphenol	3000	3300	0.845	0.936	11	NA	± 30 %	AverageRF
Bis(2-chloroisopropyl) Ether	3000	3000	2.09	2.11	1	NA	± 30 %	AverageRF
Acetophenone	3000	3500	1.64	1.91	17	NA	± 30 %	AverageRF
4-Methylphenol	3000	3300	1.23	1.35	10	NA	± 30 %	AverageRF
† N-Nitrosodi-n-propylamine	3000	3100	0.906	0.922	2	NA	± 30 %	AverageRF
Hexachloroethane	3000	3100	0.632	0.655	4	NA	± 30 %	AverageRF
Nitrobenzene	3000	3000	1.41	1.42	1	NA	± 30 %	AverageRF
Isophorone	3000	3600	0.617	0.734	19	NA	± 30 %	AverageRF
‡ 2-Nitrophenol	3000	3400	0.197	0.226	15	NA	± 20 %	AverageRF
2,4-Dimethylphenol	3000	3300	0.266	0.290	9	NA	± 30 %	AverageRF
Bis(2-chloroethoxy)methane	3000	3000	0.411	0.413	1	NA	± 30 %	AverageRF
‡ 2,4-Dichlorophenol	3000	3300	0.298	0.329	10	NA	± 20 %	AverageRF
Naphthalene	3000	3200	0.978	1.03	5	NA	± 30 %	AverageRF
4-Chloroaniline	3000	3000	0.457	0.451	-1	NA	± 30 %	AverageRF
‡ Hexachlorobutadiene	3000	3100	0.245	0.253	3	NA	± 20 %	AverageRF
Caprolactam	3000	3600	0.187	0.224	20	NA	± 30 %	AverageRF
Benzaldehyde	3000	3500	0.910	1.06	16	NA	± 30 %	AverageRF
‡ 4-Chloro-3-methylphenol	3000	3400	0.286	0.327	14	NA	± 20 %	AverageRF
2-Methylnaphthalene	3000	3000	0.573	0.565	-1	NA	± 30 %	AverageRF
† Hexachlorocyclopentadiene	3000	3700	0.333	0.406	22	NA	± 30 %	AverageRF
‡ 2,4,6-Trichlorophenol	3000	3400	0.402	0.455	13	NA	± 20 %	AverageRF
2,4,5-Trichlorophenol	3000	3400	0.434	0.498	15	NA	± 30 %	AverageRF
Biphenyl	3000	3700	1.46	1.81	23	NA	± 30 %	AverageRF
2-Chloronaphthalene	3000	2800	0.525	0.483	-8	NA	± 30 %	AverageRF
2-Nitroaniline	3000	3100	0.490	0.503	3	NA	± 30 %	AverageRF
Dimethyl Phthalate	3000	3100	1.43	1.47	3	NA	± 30 %	AverageRF
2,6-Dinitrotoluene	3000	3200	0.346	0.367	6	NA	± 30 %	AverageRF
Acenaphthylene	3000	3300	1.77	1.93	9	NA	± 30 %	AverageRF
3-Nitroaniline	3000	3300	0.341	0.372	9	NA	± 30 %	AverageRF
‡ Acenaphthene	3000	3100	1.04	1.08	4	NA	± 20 %	AverageRF
† 2,4-Dinitrophenol	3000	3100	0.143	0.144	NA	4	± 30 %	Quadratic
† 4-Nitrophenol	3000	3400	0.198	0.227	15	NA	± 30 %	AverageRF
Dibenzofuran	3000	3100	1.73	1.79	3	NA	± 30 %	AverageRF
2,4-Dinitrotoluene	3000	3400	0.432	0.485	12	NA	± 30 %	AverageRF
Diethyl Phthalate	3000	3100	1.34	1.39	4	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Calibration Date: 04/12/2005
Date Analyzed: 04/12/2005

Second Source Calibration Verification
Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard
Analysis Method: 8270C

Calibration ID: CAL4375
Units: ng/ml

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Fluorene	3000	3100	1.23	1.28	4	NA	± 30 %	AverageRF
4-Chlorophenyl Phenyl Ether	3000	3200	0.648	0.683	5	NA	± 30 %	AverageRF
4-Nitroaniline	3000	3200	0.333	0.350	5	NA	± 30 %	AverageRF
2-Methyl-4,6-dinitrophenol	3000	3200	0.242	0.255	6	NA	± 30 %	AverageRF
‡ N-Nitrosodiphenylamine	3000	3500	0.841	0.972	16	NA	± 20 %	AverageRF
4-Bromophenyl Phenyl Ether	3000	3000	0.233	0.235	1	NA	± 30 %	AverageRF
Hexachlorobenzene	3000	3100	0.260	0.272	5	NA	± 30 %	AverageRF
Atrazine	3000	3400	0.242	0.276	14	NA	± 30 %	AverageRF
‡ Pentachlorophenol	3000	3200	0.107	0.115	7	NA	± 20 %	AverageRF
Phenanthrene	3000	3000	1.16	1.15	-1	NA	± 30 %	AverageRF
Anthracene	3000	3100	1.17	1.19	2	NA	± 30 %	AverageRF
Carbazole	3000	3000	1.06	1.06	0	NA	± 30 %	AverageRF
Di-n-butyl Phthalate	3000	3100	1.39	1.42	2	NA	± 30 %	AverageRF
‡ Fluoranthene	3000	3000	1.22	1.21	-1	NA	± 30 %	AverageRF
Pyrene	3000	3000	1.55	1.54	-1	NA	± 30 %	AverageRF
Butyl Benzyl Phthalate	3000	3000	0.745	0.736	-1	NA	± 30 %	AverageRF
3,3'-Dichlorobenzidine	3000	3400	0.474	0.543	15	NA	± 30 %	AverageRF
Benz(a)anthracene	3000	3100	1.30	1.36	5	NA	± 30 %	AverageRF
Chrysene	3000	3100	1.16	1.19	2	NA	± 30 %	AverageRF
Bis(2-ethylhexyl) Phthalate	3000	3100	0.964	0.981	2	NA	± 30 %	AverageRF
‡ Di-n-octyl Phthalate	3000	3000	2.03	2.03	0	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	3000	3100	1.41	1.47	4	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	3000	3000	1.41	1.43	1	NA	± 30 %	AverageRF
‡ Benzo(a)pyrene	3000	3000	1.37	1.37	0	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	3000	3100	1.17	1.20	3	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	3000	3100	1.14	1.17	3	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	3000	3100	1.18	1.21	2	NA	± 30 %	AverageRF
‡ 1,4-Dichlorobenzene	3000	3100	1.41	1.44	2	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005

Continuing Calibration Verification Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard
Analysis Method: 8270C

Calibration Date: 04/12/2005
Calibration ID: CAL4375
Analysis Lot: KWG0506208
Units: ng/ml

File ID: J:\MS10\DATA\041505\0415F001.D
J:\MS10\DATA\041505\0415F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
1,2,4,5-Tetrachlorobenzene	3000	3100	0.01	0.735	0.750	2	NA	± 30 %	AverageRF
‡ Phenol	6000	5800	0.01	1.35	1.30	-4	NA	± 20 %	AverageRF
Bis(2-chloroethyl) Ether	3000	3000	0.01	1.12	1.12	0	NA	± 30 %	AverageRF
2-Chlorophenol	6000	5900	0.01	1.11	1.09	-2	NA	± 30 %	AverageRF
2-Methylphenol	6000	5800	0.01	0.845	0.814	-4	NA	± 30 %	AverageRF
Bis(2-chloroisopropyl) Ether	3000	2800	0.01	2.09	1.92	-8	NA	± 30 %	AverageRF
Acetophenone	3000	3000	0.01	1.64	1.66	2	NA	± 30 %	AverageRF
4-Methylphenol	6000	6100	0.01	1.23	1.24	1	NA	± 30 %	AverageRF
† N-Nitrosodi-n-propylamine	3000	2800	0.05	0.906	0.856	-5	NA	± 30 %	AverageRF
Hexachloroethane	3000	3000	0.01	0.632	0.630	0	NA	± 30 %	AverageRF
Nitrobenzene	3000	3000	0.01	1.41	1.40	-1	NA	± 30 %	AverageRF
Isophorone	3000	3000	0.01	0.617	0.617	0	NA	± 30 %	AverageRF
‡ 2-Nitrophenol	6000	6300	0.01	0.197	0.208	5	NA	± 20 %	AverageRF
2,4-Dimethylphenol	6000	6100	0.01	0.266	0.270	1	NA	± 30 %	AverageRF
Bis(2-chloroethoxy)methane	3000	3100	0.01	0.411	0.428	4	NA	± 30 %	AverageRF
‡ 2,4-Dichlorophenol	6000	6100	0.01	0.298	0.303	2	NA	± 20 %	AverageRF
Naphthalene	3000	3100	0.01	0.978	0.996	2	NA	± 30 %	AverageRF
4-Chloroaniline	3000	3000	0.01	0.457	0.464	2	NA	± 30 %	AverageRF
‡ Hexachlorobutadiene	3000	2900	0.01	0.245	0.241	-2	NA	± 20 %	AverageRF
Caprolactam	3000	2800	0.01	0.187	0.177	-5	NA	± 30 %	AverageRF
Benzaldehyde	3000	3200	0.01	0.910	0.962	6	NA	± 30 %	AverageRF
‡ 4-Chloro-3-methylphenol	6000	5800	0.01	0.286	0.277	-3	NA	± 20 %	AverageRF
2-Methylnaphthalene	3000	2900	0.01	0.573	0.557	-3	NA	± 30 %	AverageRF
† Hexachlorocyclopentadiene	3000	2300	0.05	0.333	0.252	-24	NA	± 30 %	AverageRF
‡ 2,4,6-Trichlorophenol	6000	6300	0.01	0.402	0.425	6	NA	± 20 %	AverageRF
2,4,5-Trichlorophenol	6000	6000	0.01	0.434	0.436	1	NA	± 30 %	AverageRF
Biphenyl	3000	3300	0.01	1.46	1.59	9	NA	± 30 %	AverageRF
2-Chloronaphthalene	3000	2800	0.01	0.525	0.484	-8	NA	± 30 %	AverageRF
2-Nitroaniline	3000	3100	0.01	0.490	0.501	2	NA	± 30 %	AverageRF
Dimethyl Phthalate	3000	3100	0.01	1.43	1.48	4	NA	± 30 %	AverageRF
2,6-Dinitrotoluene	3000	3200	0.01	0.346	0.370	7	NA	± 30 %	AverageRF
Acenaphthylene	3000	3000	0.01	1.77	1.79	1	NA	± 30 %	AverageRF
3-Nitroaniline	3000	3300	0.01	0.341	0.378	11	NA	± 30 %	AverageRF
‡ Acenaphthene	3000	3100	0.01	1.04	1.07	3	NA	± 30 %	AverageRF
† 2,4-Dinitrophenol	6000	4500	0.05	0.143	0.118	NA	-24	± 30 %	Quadratic
† 4-Nitrophenol	6000	5600	0.05	0.198	0.184	-7	NA	± 30 %	AverageRF
Dibenzofuran	3000	3100	0.01	1.73	1.81	5	NA	± 30 %	AverageRF
2,4-Dinitrotoluene	3000	3200	0.01	0.432	0.462	7	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005

Continuing Calibration Verification Summary
Semi-Volatile Organic Compounds by GC/MS

Calibration Type: Internal Standard
Analysis Method: 8270C

Calibration Date: 04/12/2005
Calibration ID: CAL4375
Analysis Lot: KWG0506208
Units: ng/ml

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Diethyl Phthalate	3000	3100	0.01	1.34	1.38	3	NA	± 30 %	AverageRF
Fluorene	3000	3200	0.01	1.23	1.31	6	NA	± 30 %	AverageRF
4-Chlorophenyl Phenyl Ether	3000	3200	0.01	0.648	0.685	6	NA	± 30 %	AverageRF
4-Nitroaniline	3000	3400	0.01	0.333	0.380	14	NA	± 30 %	AverageRF
2-Methyl-4,6-dinitrophenol	6000	5800	0.01	0.242	0.233	-4	NA	± 30 %	AverageRF
‡ N-Nitrosodiphenylamine	3000	3100	0.01	0.841	0.880	5	NA	± 20 %	AverageRF
4-Bromophenyl Phenyl Ether	3000	3000	0.01	0.233	0.234	1	NA	± 30 %	AverageRF
Hexachlorobenzene	3000	3000	0.01	0.260	0.258	-1	NA	± 30 %	AverageRF
Atrazine	3000	3000	0.01	0.242	0.245	1	NA	± 30 %	AverageRF
‡ Pentachlorophenol	6000	5300	0.01	0.107	0.0939	-12	NA	± 20 %	AverageRF
Phenanthrene	3000	3000	0.01	1.16	1.16	-1	NA	± 30 %	AverageRF
Anthracene	3000	3000	0.01	1.17	1.18	1	NA	± 30 %	AverageRF
Carbazole	3000	3000	0.01	1.06	1.07	1	NA	± 30 %	AverageRF
Di-n-butyl Phthalate	3000	3000	0.01	1.39	1.38	-1	NA	± 30 %	AverageRF
‡ Fluoranthene	3000	3000	0.01	1.22	1.23	1	NA	± 20 %	AverageRF
Pyrene	3000	3100	0.01	1.55	1.62	4	NA	± 30 %	AverageRF
Butyl Benzyl Phthalate	3000	3000	0.01	0.745	0.747	0	NA	± 30 %	AverageRF
3,3'-Dichlorobenzidine	6000	6400	0.01	0.474	0.509	7	NA	± 30 %	AverageRF
Benz(a)anthracene	3000	3000	0.01	1.30	1.29	-1	NA	± 30 %	AverageRF
Chrysene	3000	3000	0.01	1.16	1.16	0	NA	± 30 %	AverageRF
Bis(2-ethylhexyl) Phthalate	3000	3000	0.01	0.964	0.973	1	NA	± 30 %	AverageRF
‡ Di-n-octyl Phthalate	3000	3100	0.01	2.03	2.09	3	NA	± 20 %	AverageRF
Benzo(b)fluoranthene	3000	3100	0.01	1.41	1.44	2	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	3000	3100	0.01	1.41	1.46	3	NA	± 30 %	AverageRF
‡ Benzo(a)pyrene	3000	3100	0.01	1.37	1.41	3	NA	± 20 %	AverageRF
Indeno(1,2,3-cd)pyrene	3000	2900	0.01	1.17	1.13	-3	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	3000	3000	0.01	1.14	1.12	-2	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	3000	2800	0.01	1.18	1.12	-5	NA	± 30 %	AverageRF
2-Fluorophenol	3000	2800	0.01	1.10	1.03	-6	NA	± 30 %	AverageRF
Phenol-d6	3000	3000	0.01	1.33	1.33	0	NA	± 30 %	AverageRF
Nitrobenzene-d5	3000	3000	0.01	1.34	1.34	0	NA	± 30 %	AverageRF
2-Fluorobiphenyl	3000	3100	0.01	1.30	1.35	4	NA	± 30 %	AverageRF
2,4,6-Tribromophenol	3000	3100	0.01	0.122	0.124	2	NA	± 30 %	AverageRF
Terphenyl-d14	3000	3100	0.01	0.922	0.941	2	NA	± 30 %	AverageRF
‡ 1,4-Dichlorobenzene	3000	3000	0.01	1.41	1.43	1	NA	± 20 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† **SPCC Compound** ‡ **CCC Compound**

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554

Analysis Run Log
Semi-Volatile Organic Compounds by GC/MS

Analysis Method: 8270C

Analysis Lot: KWG0506208
Instrument ID: MS10

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0415F001.D	Continuing Calibration Verification	KWG0506208-2	4/15/2005	10:13		4/15/2005	10:42
0415T001.D	GC/MS Tuning - Generic	KWG0506208-1	4/15/2005	10:13		4/15/2005	10:42
0415F002.D	Continuing Calibration Verification	KWG0506208-2	4/15/2005	11:01		4/15/2005	11:30
0415F003.D	Method Blank	KWG0505755-7	4/15/2005	11:41		4/15/2005	12:10
0415F004.D	Lab Control Sample	KWG0505755-5	4/15/2005	12:22		4/15/2005	12:51
0415F005.D	Duplicate Lab Control Sample	KWG0505755-6	4/15/2005	13:01		4/15/2005	13:31
0415F006.D	TO63-IDW-01	K2502554-001	4/15/2005	13:40		4/15/2005	14:09
0415F007.D	ZZZZZZ	ZZZZZZ	4/15/2005	14:20		4/15/2005	14:49
0415F008.D	ZZZZZZ	ZZZZZZ	4/15/2005	14:59		4/15/2005	15:28
0415F009.D	ZZZZZZ	ZZZZZZ	4/15/2005	15:39		4/15/2005	16:08
0415F010.D	Batch QC	K2502499-011	4/15/2005	16:22		4/15/2005	16:52
0415F011.D	Batch QCMS	KWG0505755-1	4/15/2005	17:01		4/15/2005	17:30
0415F012.D	Batch QCDMS	KWG0505755-2	4/15/2005	17:41		4/15/2005	18:10
0415F013.D	ZZZZZZ	ZZZZZZ	4/15/2005	18:20		4/15/2005	18:49
0415F014.D	ZZZZZZ	ZZZZZZ	4/15/2005	19:00		4/15/2005	19:29
0415F015.D	ZZZZZZ	ZZZZZZ	4/15/2005	19:39		4/15/2005	20:09
0415F016.D	ZZZZZZ	ZZZZZZ	4/15/2005	20:18		4/15/2005	20:47
0415F017.D	ZZZZZZ	ZZZZZZ	4/15/2005	20:58		4/15/2005	21:28
0415F018.D	ZZZZZZ	ZZZZZZ	4/15/2005	21:37		4/15/2005	22:06
0415F019.D	ZZZZZZ	ZZZZZZ	4/15/2005	22:16		4/15/2005	22:45
0415F020.D	Instrument Blank	KWG0506208-3	4/15/2005	22:55		4/15/2005	23:24

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005

Extraction Prep Log
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Extraction Lot: KWG0505755
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
TO63-IDW-01	K2502554-001	04/07/05	04/08/05	40.09g	2ml	69.1	
Method Blank	KWG0505755-7	NA	NA	40.09g	2ml	NA	
Batch QC	K2502499-011	NA	NA	40.07g	2ml	85.8	
Batch QCMS	KWG0505755-1	NA	NA	40.06g	2ml	85.8	
Batch QCDMS	KWG0505755-2	NA	NA	40.04g	2ml	85.8	
Lab Control Sample	KWG0505755-5	NA	NA	20.00g	2ml	NA	
Duplicate Lab Control Sample	KWG0505755-6	NA	NA	20.00g	2ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Organic Analysis:
Semi-Volatile Organic Compounds by GC/MS

Validation Package

Organic Analysis:
Semi-Volatile Organic Compounds by GC/MS

Validation Package

QC Reports

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6	
TO63-IDW-01	K2502554-001	62	76	70	72	89	112	
Method Blank	KWG0505755-7	68	79	81	97	85	125	*
Batch QC	K2502499-011	54	71	65	74	81	97	
Batch QCMS	KWG0505755-1	55	69	62	76	88	99	
Batch QCDMS	KWG0505755-2	63	79	69	78	93	107	
Lab Control Sample	KWG0505755-5	69	82	82	82	91	115	
Duplicate Lab Control Sample	KWG0505755-6	66	75	76	79	86	110	

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	11-87	Sur5 = 2,4,6-Tribromophenol	23-113
Sur2 = Phenol-d6	20-99	Sur6 = Terphenyl-d14	39-124
Sur3 = Nitrobenzene-d5	10-99		
Sur4 = 2-Fluorobiphenyl	10-104		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 10:13

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F001.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	80,804	8.62	263,490	10.56	125,337	13.38
	Upper Limit ==>	161,608	9.12	526,980	11.06	250,674	13.88
	Lower Limit ==>	40,402	8.12	131,745	10.06	62,669	12.88
	ICAL Result ==>	67,549	8.74	217,092	10.70	117,159	13.52
Associated Analyses							
Method Blank	KWG0505755-7	66,962	8.61	205,309	10.54	99,715	13.37
Lab Control Sample	KWG0505755-5	65,827	8.61	222,793	10.55	107,039	13.38
Duplicate Lab Control Sample	KWG0505755-6	69,994	8.61	227,426	10.55	109,591	13.37
TO63-IDW-01	K2502554-001	68,493	8.61	222,203	10.54	108,397	13.37
Batch QC	K2502499-011	67,029	8.62	215,343	10.56	103,378	13.39
Batch QCMS	KWG0505755-1	69,522	8.63	216,074	10.56	109,049	13.40
Batch QCDMS	KWG0505755-2	67,141	8.63	221,018	10.57	108,420	13.41

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 10:13

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F001.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		Phenanthrene-d10		Chrysene-d12		Perylene-d12	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	216,469	15.80	167,838	20.26	119,483	24.17
	Upper Limit ==>	432,938	16.30	335,676	20.76	238,966	24.67
	Lower Limit ==>	108,235	15.30	83,919	19.76	59,742	23.67
	ICAL Result ==>	187,961	15.94	149,473	20.44	112,203	24.42
Associated Analyses							
Method Blank	KWG0505755-7	157,563	15.79	120,134	20.23	84,870	24.15
Lab Control Sample	KWG0505755-5	169,169	15.79	125,989	20.25	96,643	24.16
Duplicate Lab Control Sample	KWG0505755-6	183,616	15.79	137,373	20.24	104,573	24.16
TO63-IDW-01	K2502554-001	175,926	15.78	125,528	20.23	100,858	24.15
Batch QC	K2502499-011	167,820	15.80	123,855	20.27	99,372	24.23
Batch QCMS	KWG0505755-1	176,835	15.82	135,187	20.31	102,944	24.30
Batch QCDMS	KWG0505755-2	177,660	15.83	134,507	20.32	104,154	24.32

Results flagged with an asterisk (*) indicate values outside control criteria.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 11:01

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F002.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		1,4-Dichlorobenzene-d4		Naphthalene-d8		Acenaphthene-d10	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	66,215	8.62	213,819	10.55	106,564	13.37
	Upper Limit ==>	132,430	9.12	427,638	11.05	213,128	13.87
	Lower Limit ==>	33,108	8.12	106,910	10.05	53,282	12.87
	ICAL Result ==>	76,970	8.75	249,924	10.68	131,809	13.51
Associated Analyses							
Method Blank	KWG0505755-7	66,962	8.61	205,309	10.54	99,715	13.37
Lab Control Sample	KWG0505755-5	65,827	8.61	222,793	10.55	107,039	13.38
Duplicate Lab Control Sample	KWG0505755-6	69,994	8.61	227,426	10.55	109,591	13.37
TO63-IDW-01	K2502554-001	68,493	8.61	222,203	10.54	108,397	13.37
Batch QC	K2502499-011	67,029	8.62	215,343	10.56	103,378	13.39
Batch QCMS	KWG0505755-1	69,522	8.63	216,074	10.56	109,049	13.40
Batch QCDMS	KWG0505755-2	67,141	8.63	221,018	10.57	108,420	13.41

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063

Service Request: K2502554
Date Analyzed: 04/15/2005
Time Analyzed: 11:01

Internal Standard Area and RT Summary
Semi-Volatile Organic Compounds by GC/MS

File ID: J:\MS10\DATA\041505\0415F002.D
Instrument ID: MS10
Analysis Method: 8270C

Lab Code: KWG0506208-2
Analysis Lot: KWG0506208

		Phenanthrene-d10		Chrysene-d12	
		Area	**RT**	**Area**	**RT**
	Results ==>	174,402	15.79	127,566	20.24
	Upper Limit ==>	348,804	16.29	255,132	20.74
	Lower Limit ==>	87,201	15.29	63,783	19.74
	ICAL Result ==>	213,117	15.94	160,731	20.43
Associated Analyses					
Method Blank	KWG0505755-7	157,563	15.79	120,134	20.23
Lab Control Sample	KWG0505755-5	169,169	15.79	125,989	20.25
Duplicate Lab Control Sample	KWG0505755-6	183,616	15.79	137,373	20.24
TO63-IDW-01	K2502554-001	175,926	15.78	125,528	20.23
Batch QC	K2502499-011	167,820	15.80	123,855	20.27
Batch QCMS	KWG0505755-1	176,835	15.82	135,187	20.31
Batch QCDMS	KWG0505755-2	177,660	15.83	134,507	20.32

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005
Date Analyzed: 04/15/2005

Matrix Spike/Duplicate Matrix Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Sample Name: Batch QC
Lab Code: K2502499-011

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry

Level: Low
Extraction Lot: KWG0505755

Analyte Name	Sample Result	Batch QCMS KWG0505755-1 Matrix Spike			Batch QCDMS KWG0505755-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Phenol	7.2	103	145	66	121	146	78	21-106	17	40
2-Chlorophenol	ND	95.5	145	66	108	146	74	23-94	13	40
N-Nitrosodi-n-propylamine	ND	94.5	145	65	105	146	72	22-115	10	40
4-Chloro-3-methylphenol	ND	104	145	71	116	146	80	21-112	11	40
Acenaphthene	ND	113	145	78	115	146	79	10-140	2	40
4-Nitrophenol	ND	126	145	87	105	146	72	24-120	19	40
2,4-Dinitrotoluene	ND	122	145	84	134	146	92	28-126	9	40
Pentachlorophenol	ND	94.1	145	65	90.4	146	62	10-132	4	40
Pyrene	7.0	121	145	78	125	146	81	10-173	3	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005
Date Analyzed: 04/15/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0505755

	Lab Control Sample KWG0505755-5 Lab Control Spike			Duplicate Lab Control Sample KWG0505755-6 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
1,2,4,5-Tetrachlorobenzene	179	250	72	179	250	72	50-85	0	40
Phenol	201	250	80	187	250	75	30-107	7	40
Bis(2-chloroethyl) Ether	185	250	74	170	250	68	35-100	8	40
2-Chlorophenol	191	250	76	182	250	73	34-99	5	40
2-Methylphenol	179	250	71	164	250	66	17-97	8	40
Bis(2-chloroisopropyl) Ether	181	250	72	165	250	66	30-101	9	40
Acetophenone	205	250	82	192	250	77	48-100	7	40
4-Methylphenol	179	250	72	172	250	69	14-99	4	40
N-Nitrosodi-n-propylamine	193	250	77	179	250	72	35-110	7	40
Hexachloroethane	176	250	71	169	250	67	38-98	4	40
Nitrobenzene	181	250	72	169	250	68	35-100	7	40
Isophorone	203	250	81	196	250	79	42-110	3	40
2-Nitrophenol	195	250	78	192	250	77	35-106	2	40
2,4-Dimethylphenol	93.1	250	37	96.1	250	38	10-72	3	40
Bis(2-chloroethoxy)methane	179	250	71	177	250	71	37-99	1	40
2,4-Dichlorophenol	188	250	75	184	250	74	38-98	2	40
Naphthalene	176	250	71	171	250	69	39-97	3	40
4-Chloroaniline	124	250	49	126	250	50	21-86	2	40
Hexachlorobutadiene	162	250	65	156	250	62	38-96	4	40
Caprolactam	172	250	69	182	250	73	32-101	5	40
Benzaldehyde	161	250	65	157	250	63	47-88	3	40
4-Chloro-3-methylphenol	184	250	74	181	250	73	35-102	2	40
2-Methylnaphthalene	154	250	61	156	250	62	38-95	2	40
Hexachlorocyclopentadiene	87.3	250	35	90.8	250	36	15-96	4	40
2,4,6-Trichlorophenol	199	250	80	190	250	76	39-99	5	40
2,4,5-Trichlorophenol	207	250	83	198	250	79	39-101	4	40
Biphenyl	198	250	79	198	250	79	52-90	0	40
2-Chloronaphthalene	178	250	71	177	250	71	37-102	0	40
2-Nitroaniline	188	250	75	182	250	73	44-105	3	40
Dimethyl Phthalate	199	250	80	190	250	76	44-107	5	40
2,6-Dinitrotoluene	195	250	78	192	250	77	48-109	1	40
Acenaphthylene	199	250	79	201	250	80	46-106	1	40
3-Nitroaniline	187	250	75	182	250	73	40-106	3	40
Acenaphthene	184	250	73	185	250	74	42-98	1	40
2,4-Dinitrophenol	192	250	77	181	250	73	21-120	6	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554
Date Extracted: 04/11/2005
Date Analyzed: 04/15/2005

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG0505755

Analyte Name	Lab Control Sample KWG0505755-5 Lab Control Spike Result	Expected	%Rec	Duplicate Lab Control Sample KWG0505755-6 Duplicate Lab Control Spike Result	Expected	%Rec	%Rec Limits	RPD	RPD Limit
4-Nitrophenol	211	250	85	207	250	83	43-119	2	40
Dibenzofuran	183	250	73	182	250	73	41-99	1	40
2,4-Dinitrotoluene	220	250	88	215	250	86	50-117	2	40
Diethyl Phthalate	214	250	86	200	250	80	45-114	7	40
Fluorene	193	250	77	190	250	76	43-104	1	40
4-Chlorophenyl Phenyl Ether	187	250	75	190	250	76	42-103	2	40
4-Nitroaniline	200	250	80	195	250	78	41-112	3	40
2-Methyl-4,6-dinitrophenol	207	250	83	211	250	84	37-113	2	40
N-Nitrosodiphenylamine	219	250	88	220	250	88	27-123	0	40
4-Bromophenyl Phenyl Ether	194	250	78	181	250	73	47-103	7	40
Hexachlorobenzene	203	250	81	189	250	76	49-107	7	40
Atrazine	229	250	91	215	250	86	66-111	6	40
Pentachlorophenol	149	250	60	144	250	58	25-114	4	40
Phenanthrene	201	250	80	188	250	75	48-101	7	40
Anthracene	213	250	85	189	250	76	50-106	12	40
Carbazole	219	250	88	207	250	83	53-115	6	40
Di-n-butyl Phthalate	248	250	99	235	250	94	49-126	5	40
Fluoranthene	223	250	89	214	250	86	51-119	4	40
Pyrene	226	250	90	213	250	85	51-109	6	40
Butyl Benzyl Phthalate	232	250	93	216	250	86	54-123	8	40
3,3'-Dichlorobenzidine	123	250	49	138	250	55	10-104	11	40
Benz(a)anthracene	218	250	87	212	250	85	57-115	3	40
Chrysene	238	250	95	216	250	87	59-120	9	40
Bis(2-ethylhexyl) Phthalate	239	250	96	224	250	90	52-136	7	40
Di-n-octyl Phthalate	224	250	90	216	250	87	54-127	4	40
Benzo(b)fluoranthene	225	250	90	218	250	87	54-116	3	40
Benzo(k)fluoranthene	224	250	90	212	250	85	56-115	5	40
Benzo(a)pyrene	223	250	89	215	250	86	53-120	4	40
Indeno(1,2,3-cd)pyrene	218	250	87	209	250	84	52-125	4	40
Dibenz(a,h)anthracene	225	250	90	206	250	83	53-122	8	40
Benzo(g,h,i)perylene	219	250	87	202	250	81	45-124	8	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	Battelle Memorial Institute	**Service Request:**	K2502554
Project:	Novato Ballfields/G486063	**Date Extracted:**	04/11/2005
Sample Matrix:	Soil	**Date Analyzed:**	04/15/2005
		Time Analyzed:	11:41

Method Blank Summary
Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**File ID:**	J:\MS10\DATA\041505\0415F003.D
Lab Code:	KWG0505755-7	**Instrument ID:**	MS10
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C	**Extraction Lot:**	KWG0505755

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0505755-5	J:\MS10\DATA\041505\0415F004.D	04/15/05	12:22
Duplicate Lab Control Sample	KWG0505755-6	J:\MS10\DATA\041505\0415F005.D	04/15/05	13:01
TO63-IDW-01	K2502554-001	J:\MS10\DATA\041505\0415F006.D	04/15/05	13:40
Batch QC	K2502499-011	J:\MS10\DATA\041505\0415F010.D	04/15/05	16:22
Batch QCMS	KWG0505755-1	J:\MS10\DATA\041505\0415F011.D	04/15/05	17:01
Batch QCDMS	KWG0505755-2	J:\MS10\DATA\041505\0415F012.D	04/15/05	17:41

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502554

Lab Control Sample/Duplicate Lab Control Sample Summary
Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Lab Control Sample	**Sample Name:**	Duplicate Lab Control Sample
Lab Code:	KWG0505755-5	**Lab Code:**	KWG0505755-6
File ID:	J:\MS10\DATA\041505\0415F004.D	**File ID:**	J:\MS10\DATA\041505\0415F005.D
Instrument ID:	MS10	**Instrument ID:**	MS10
Date Extracted:	04/11/2005	**Date Extracted:**	04/11/2005
Date Analyzed:	04/15/2005	**Date Analyzed:**	04/15/2005
Time Analyzed:	12:22	**Time Analyzed:**	13:01

Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C	**Extraction Lot:**	KWG0505755

These Lab Control Samples apply to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG0505755-7	J:\MS10\DATA\041505\0415F003.D	04/15/05	11:41
TO63-IDW-01	K2502554-001	J:\MS10\DATA\041505\0415F006.D	04/15/05	13:40
Batch QC	K2502499-011	J:\MS10\DATA\041505\0415F010.D	04/15/05	16:22
Batch QCMS	KWG0505755-1	J:\MS10\DATA\041505\0415F011.D	04/15/05	17:01
Batch QCDMS	KWG0505755-2	J:\MS10\DATA\041505\0415F012.D	04/15/05	17:41